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OVARIAN FIBROMA: AN UNCOMMON CASE REPORT

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ABSTRACT

Background: Ovarian fibroma is a rare and solid benign tumor that accounts for 0.5 to 1% of all benign ovarian tumors. It raises the problem of differential diagnosis with uterine fibroid because of their clinical and ultrasonographic resemblance and with malignant ovarian tumors due to ascites and elevated serum level of CA-125. **Case presentation:** We hereby report an uncommon case of a 40-year-old patient with symptomatic chronic pelvic pain who has been diagnosed with ovarian dermoid cyst. It was decided to perform an exploratory laparotomy with cystectomy. The histopathological examination confirmed the diagnosis of ovarian fibroma. **Conclusions:** Fibrothecal tumors of the ovary are uncommon. They mainly affect elderly women and are difficult to diagnose preoperatively because of their clinical and paraclinical resemblance to a malignant tumor, the definitive diagnosis is purely histological. Treatment consists of laparotomy or laparoscopic surgical resection.

KEYWORDS: Ovarian fibroma; ovarian tumor and ovarian dermoid cyst.

INTRODUCTION

Ovarian fibroma is classified as a stromal tumor of the sexual cord, accounting for approximately 5 to 8% of all ovarian tumors and comprising three pathological subtypes (fibroma, thecoma and fibrothecoma) based on the different fiber and ingredient compositions of the theca.[5] In the literature the mean age of onset varies from 17 to 79 years.[6,7] They can be unilateral in 90% of cases and their size can vary from 3 to 15 cm.[8]

Case presentation

We hereby report the case of a 40-year-old patient who underwent a cystectomy for a dermoid cyst of the right ovary 15 years ago, nulligest, who consulted for a chronic left pelvic pain with a regular menstrual cycle. On clinical examination, a normal uterus was found with a mobilization-sensitive left lateral uterine mass measuring about 3x3 cm separated from the uterus by a groove.

Pelvic ultrasound showed a left ovary increased in size, and seat of a hypoechoic formation of 27 mm, containing within it a macrocalcification of 8.5 mm and a yellow corpus hemorrhagic 15mm; it was not noted an effusion in the pouch of Douglas. Abdominopelvic CT showed a left adnexal mass spontaneously hypodense, oblong, wherein there was a calcification, which enhanced after contrast discreetly and which measured 50 mm in major axis and extended over a height of 35mm evoking a dermoid ovarian cyst.

The biological tests (CBC, crushes balance, electrolytes, hepatic and renal function) were normal and tumor marker CA125 was increased to 450 IU / ml.

Given radiological and biological clinical data, an exploratory laparotomy was performed. We found a whitish smooth solid left ovarian mass; a cystectomy was performed.

The histopathological examination showed an ovary whose architecture was largely erased by a large fibroblastic cell population, dense, hyalinized appearance, sometimes drawing fasciculated with entangled short bundles. The diagnosis of an ovarian fibroma was confirmed.

The postoperative follow-up was simple. The patient was discharged on D3 postoperatively. The clinical examination one month after surgery was normal and the level of CA125 dropped to 27 IU / ml.

DISCUSSION

Ovarian tumors are uncommon benign tumors wich come from mesenchymal fusiform cells that produce collagen.[9] They are mainly observed in menopausal patients.[10] However, some authors report 2 frequency peaks: the first peak occurs after menopause and the second between 20 and 40 years. The occurrence of these tumors before the age of 20 is extremely rare.[11,12] Macroscopically it is a solid, spherical, slightly lobulated, encapsulated, whitish mass, covered with a bright and intact ovarian serosa.[13]

Fibrothechomas are mainly manifested by pelvic pain, as in our patient's case, or by a pelvic mass with metrorrhagia that would be related to an endocrine syndrome in case of a secreting tumor.[14] In some cases, signs of urinary or digestive repercussions are the first line and motivates the patient to consult.[14] The clinical examination often finds a solid, mobile tumor, of regular surface and of variable size,[15,14] this is the case of our patient.

Some associations or clinical forms, although less common, deserve to be specified. The Demons-Meigs syndrome which combines ovarian fibroma, ascites and hydrothorax, occurs in 1 to 10% of ovarian fibroids.[16,17] The pleural and peritoneal effusion associated with this syndrome generally regresses rapidly after removal of the tumor. Gorlin-Goltz syndrome or basal cell nevus syndrome is much less common. It associates basocellular nevi or punctate keratomes, calcifications of the false brain, maxillary cysts and bilateral ovarian fibroids.[11,18,19] Ovarian fibroids can finally be associated with familial polyposis.[17,20] in the case of Gardner's syndrome and Richard and Peutz-Jeghers syndrome.[15] In our case we have not objectified endocrine syndrome, digestive lesions or Demons Meigs syndrome. Radiologically, chest radiography was performed back normal.

Biologically, ovarian fibroids are sometimes found with elevated concentrations of CA-125, the level observed in our observation is 450 IU/ mL making it suspect of malignancy.

The paraclinical exploration of these ovarian tumor's rests like all others, on the ultrasound. The most commonly encountered images are echogenic or mixed images, but anechoic images are also reported.[21,22,23,24,14] In our study, the mass was hypoechoic. On the CT, these tumors have been described as solid masses with delayed accumulation of contrast medium.[16] Troiano.[25] reported that magnetic resonance imaging could recognize up to 82% of ovarian fibrothecomas, which are manifested by a T1 iso signal and a hypo signal on T2-weighted sequences.

The treatment of ovarian fibroids is surgical, this surgery depends on the age of the patient, it is conservative and consists of a lumpectomy in young women while it is radical with adnexectomy, often bilateral, in women peri- or post menopause.[21,22,26] The diagnostic certainty is based on the anatomo-pathological examination.

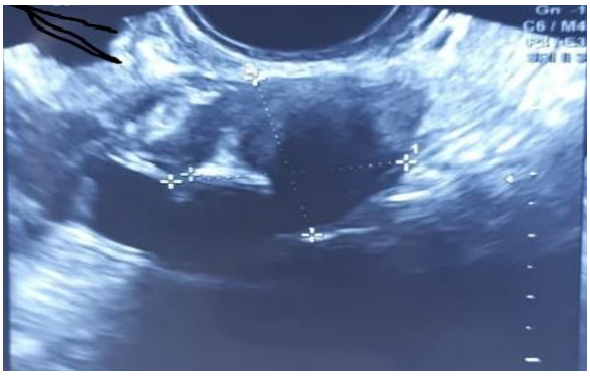

Figure 1: Ultrasound image showing hypo echoic formation of 27 mm with macrocalcification.

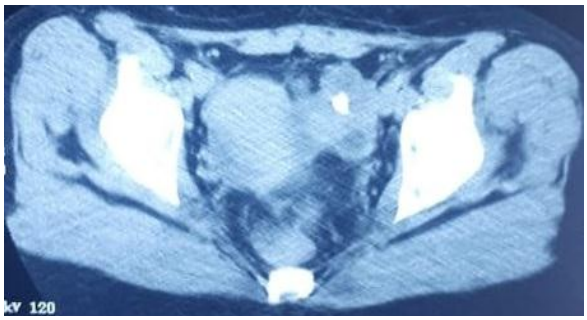

Figure 2: Abdominopelvic CT showing a spontaneously hypodense left lateral uterine mass.

Figure 3: Macroscopic appearance of ovarian fibroma.

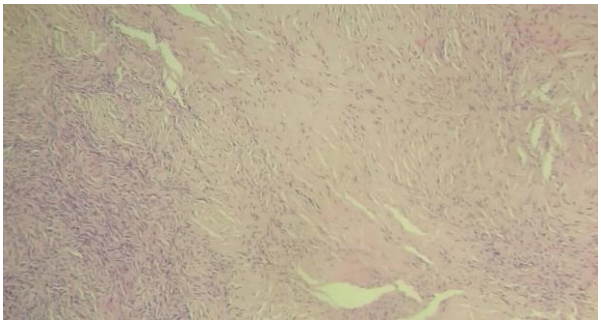

Figure 4: Aspect of ovarian fibroma at low x40 magnification.

CONCLUSIONS

Fibrothecal tumors of the ovary are uncommon. They mainly affect elderly women and are difficult to diagnose preoperatively because of their clinical and paraclinical resemblance to a malignant tumor, the definitive diagnosis is purely histological. Treatment consists of laparotomy or laparoscopic surgical resection.

Abbreviations

CBC: Cell Blood Count
CT-scan: Computerized Tomography
D3: Day three

Declarations

Guarantor of Submission
The corresponding author is the guarantor of submission.

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Availability of data and materials

Supporting material is available if further analysis is needed.

Competing interests

The authors declare that they have no competing interests.

Consent for publication

Written informed consent was obtained from the patient for publication of this case report and any accompanying images. A copy of the written consent is available for review by the Editor-in-Chief of this journal.

Ethics approval and consent to participate

Ethics approval has been obtained to proceed with the current study. Written informed consent was obtained from the patient for participation in this publication.

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